WATER RESOURCES RESEARCH GRANT PROPOSAL

Project ID: 2005NJ89B

Title: Impacts of Organic Matter Heterogeneity on Desorption and Availability of Sediment-bound PCBs

Project Type: Research

Focus Categories: Hydrogeochemistry, Toxic Substances, Sediments

Keywords: PCBs, sediment, desorption, Hudson River, polychlorinated biphenyls, contaminant, bioavalability

Start Date: 03/01/2005

End Date: 02/28/2006

Federal Funds: $30,000

Non-Federal Matching Funds: $56,828

Congressional District: 6

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Abstract

This study seeks to quantify the rates of desorption of polychlorinated biphenyls (PCBs) from various natural organic matter fractions of sediments from the estuarine portion of the Hudson River, thereby predicting the bioavailability of sediment associated PCBs in the Estuary. The research addresses NJ priority issues related to integrity of aquatic ecosystems and predictive capabilities for protection and restoration. The results of this research will increase our understanding of the cycling and bioavailibility of PCBs in the Hudson River/Estuary system and will aid water quality modelers in developing bioacccumulation models in support of the ongoing efforts to develop a TMDA for PCBs in the Estuary. The research will also facilitate an interpretation of the environmental risks associated with the dredging of portions of the Upper Hudson that is scheduled to occur in the next few years.